THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KURT F. HALLAMASEK

Appeal No. 96-4001
Application 08/246,805[1]

ON BRIEF

Before KRASS, FLEMING, and RUGGIERO, Administrative Patent Judges.

RUGGIERO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1, 5, 6, 18, 20, 21, 26-28, 42, and 43, all of the claims pending in the present application. Claims 2-4, 7-17, 19, 22-25, and 29-41

[1] Application for patent filed May 20, 1994. According to appellant, this application is a continuation of Application No. 07/843,511 filed February 28, 1992, now U.S. Patent No. 5,408,368 granted April 18, 1995.

have been canceled.

The claimed invention relates to the provision of servo control information referred to as a servo track pattern on a recording medium. More particularly, Appellant discloses at pages 51 and 52 of the specification that the servo track pattern is comprised of fields of data which are separated into first and second halves of data. The bits of the first half of a field of bits are reversed in polarity relative to a second half of a bit field as illustrated in Figure 18 of the drawings.

Claim 1 is illustrative of the invention and is reproduced as follows:

1. A longitudinal servo track pattern located on an elongated medium having other areas on which information are recorded and reproduced, said servo track pattern adapted to provide signals for a servo system for controlling the position and velocity of the elongated medium relative to a magnetic reproducing head which reads information from the elongated medium, said servo track pattern comprising a plurality of digital mark patterns recorded thereon, each of said digital mark patterns comprising:

a leading identifier field of digital bits;

a trailing identifier field of digital bits; and

a field of digital synchronizing data bits having a transition centrally located between said leading and trailing identifier fields,

wherein said transition defines a first half and a second half of said each of said digital mark patterns, said bits of said first half being reversed in polarity relative to said bits of said second half.

The Examiner relies on the following references:

Blum	4,888,654	Dec. 19, 1989
Bradshaw et al. (Bradshaw)	5,272,572	Dec. 21, 1993 (Effectively filed Feb. 26, 1991)
Seko et al. (Seko) (Japanese Kokai)[2]	60-50687	Mar. 20, 1985

Claims 1, 5, 6, 18, 20, 21, 26-28, 42, and 43 stand finally rejected under 35 U.S.C. § 103 as being unpatentable over Seko in view of Bradshaw and Blum. Rather than reiterate the arguments of Appellant and the Examiner, reference is made to the Briefs[3] and Answer for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejection advanced by the Examiner and the evidence of obviousness relied upon by the Examiner as support for the rejection. We have, likewise, reviewed and taken into consideration, in reaching our decision, Appellant's arguments set forth in the Briefs along with the Examiner's rationale in support of the rejection and arguments in rebuttal set forth in the Examiner's Answer.

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[2] A copy of the translation provided by the U.S. Patent and Trademark Office, February 1999, is included and relied upon for this decision.

[3] The Appeal Brief was filed May 1, 1996. In response to the Examiner's Answer dated June 20, 1996, a Reply Brief was filed August 23, 1996 which was acknowledged and entered by the Examiner without further comment on April 4, 1997.

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 1, 5, 6, 18, 20, 21, 26-28, 42, and 43. Accordingly, we reverse.

Appellant has indicated that for purposes of this appeal the claims will all stand or fall together as a single group [Brief, page 7]. Consistent with this indication Appellant has made no separate arguments with respect to any of the claims on appeal. Accordingly, all the claims before us will stand or fall together. Note In re King, 801 F.2d 1324, 1325, 231 USPQ 136, 137 (Fed. Cir. 1986); In re Sernaker, 702 F.2d 989, 991, 217 USPQ 1, 3 (Fed. Cir. 1983). Accordingly, we will only consider the rejection against independent claim 1 as representative of all the claims on appeal.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (CCPA 1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988);

Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

With respect to representative independent claim 1, as the basis for the obviousness rejection, the Examiner has proposed to modify Seko by adding the position and velocity control features of Bradshaw and, in the Examiner's view, the polarity reversing features of Blum. In response, Appellant (Brief, pages 9 and 10) has attacked the alleged deficiency of Blum in disclosing the claimed polarity reversal of bits. The relevant portion of representative claim 1 recites:

> wherein said transition defines a first half and a second half of said each of said digital mark patterns, said bits of said first half being reversed in polarity relative to said bits of said second half.

The Examiner has taken the position (Answer, page 4) that, starting with the assumption that a "1" is a bit pattern of one polarity and a "0" is a bit pattern of opposite polarity, if the order of bits are reversed, the resulting bit pattern in a trailing/leading field of Blum would be reversed in polarity relative to the leading/trailing field. Appellant has responded (Reply Brief, page 2) with the contention that the Examiner's assumption as to the relationship of polarity to bit value is incorrect. Appellant argues that,

in the bi-phase encoding technique utilized in Appellant's invention, it is the number of transitions during a bit period and not the polarity of the bit pattern that establishes the value of a bit. In Appellant's view, therefore, the Examiner's conclusion that bit reversal results in polarity reversal lacks factual support on the record.

After careful review of Appellant's arguments and the Blum reference we are in agreement with Appellant's stated position in the Briefs. As can be seen from the illustration in Blum's Figure 4 as well as the description at column 6, line 62 through column 7, line 24 of Blum, a bi-phase encoding technique is utilized by Blum just as in Appellant's invention. The description in the above cited passage from Blum confirms that, in bi-phase code, a "0" has a transition only at the end of the bit period whereas a "1" has a transition within the bit period as well as at the end. As can also be seen by reference to Figure 4 of Blum, although the bit pattern is reversed in order from "A" to "B", the polarity of the bits is not reversed. In other words, if bit pattern "A" is read from left to right, the "1" transitions from high to low the same as the "1" in pattern "B" when read from right to left. It is clear then that, contrary to the Examiner's position with regard to Blum, a reversal of the order of bits does not necessarily mean a reversal of polarity.

In conclusion, we are in agreement with Appellant that the Examiner has failed to establish a prima facie case of obviousness since there is no teaching of record of polarity reversal of bits nor any suggestion that a reversal of bit order will result in any such reversal of polarity. Conversely, there is no

suggestion in the cited prior art that one of ordinary skill would reverse the polarity of bits in order to reverse the bit order. The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F. 2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992).

In summary, we have not sustained the Examiner's rejection of the claims under 35 U.S.C. § 103. Therefore, the decision of the Examiner rejecting claims 1, 5, 6, 18, 20, 21, 26-28, 42, and 43 is reversed.

REVERSED

ERROL A. KRASS Administrative Patent Judge	)	
	)	BOARD OF PATENT
	)	APPEALS AND
MICHAEL R. FLEMING Administrative Patent Judge	)	INTERFERENCES
JOSEPH F. RUGGIERO Administrative Patent Judge	)	

JFR/dal

CHARLES J. BARBAS

CESARI and McKENNA
30 ROWES WHARF
BOSTON, MA 02110